

6FQ7

Medium-Mu Twin Triode

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3	volts
Current	0.6 ± 6%	amp
Warm-up time (Average)	11	sec

Direct Interelectrode Capacitances (Approx.):^a

	Unit No.1	Unit No.2	
Grid to plate	3.6	3.8	μμf
Grid to cathode and heater.	2.4	2.4	μμf
Plate to cathode and heater	0.34	0.26	μμf
Plate of unit No.1 to plate of unit No.2.		1	μμf

Characteristics, Class A₁ Amplifier (Each Unit):

Plate Voltage	90	250	volts
Grid Voltage.	0	-8	volts
Amplification Factor.	20	20	
Plate Resistance (Approx.)	6700	7700	ohms
Transconductance.	3000	2600	μmhos
Plate Current	10	9	ma
Plate Current for grid volts = -12.5.	-	1.3	ma
Grid Voltage (Approx.) for plate μa = 10	-7	-18	volts

Mechanical:

Operating Position.	Any
Maximum Overall Length.	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip).	2" ± 3/32"
Diameter.	0.750" to 0.875"
Dimensional Outline	See General Section
Bulb.	T6-1/2
Base.	Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW.	9LP

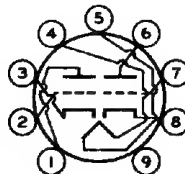
Pin 1 - Plate of
Unit No.2

Pin 2 - Grid of
Unit No.2

Pin 3 - Cathode of
Unit No.2

Pin 4 - Heater

Pin 5 - Heater



Pin 6 - Plate of
Unit No.1

Pin 7 - Grid of
Unit No.1

Pin 8 - Cathode of
Unit No.1

Pin 9 - No Connec-
tion



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AMPLIFIER — Class A₁

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE.	330	max.	volts
GRID VOLTAGE:			
Positive-bias value.	0	max.	volts
CATHODE CURRENT.	22	max.	ma
PLATE DISSIPATION:			
Either plate.	4	max.	watts
Both plates (Both units operating) . . .	5.7	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode. .	200	max.	volts
Heater positive with respect to cathode. .	200 ^b	max.	volts

Typical Operation as Resistance-Coupled Amplifier:

See *RESISTANCE-COUPLED AMPLIFIER CHART No. 29*
at front of this Section

Maximum Circuit Values:

Grid-Circuit Resistance:			
For fixed-bias operation	1	max.	megohm

HORIZONTAL-DEFLECTION OSCILLATOR

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system^c

DC PLATE VOLTAGE.	330	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	660	max.	volts
CATHODE CURRENT:			
Peak.	330	max.	ma
Average	22	max.	ma
PLATE DISSIPATION:			
Either plate.	4	max.	watts
Both plates (Both units operating) . . .	5.7	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode .	200	max.	volts
Heater positive with respect to cathode .	200 ^b	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance	2.2	max.	megohms
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VERTICAL-DEFLECTION OSCILLATOR

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system^c

DC PLATE VOLTAGE.	330	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	440	max.	volts
CATHODE CURRENT:			
Peak.	77	max.	ma
Average	22	max.	ma

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PLATE DISSIPATION:

Either plate. 4 max. watts
Both plates (Both units operating). . . 5.7 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with
respect to cathode. 200 max. volts
Heater positive with
respect to cathode. 200^b max. volts

Maximum Circuit Values:

Grid-Circuit Resistance 2.2 max. megohms

^a Without external shield.

^b The dc component must not exceed 100 volts.

^c As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

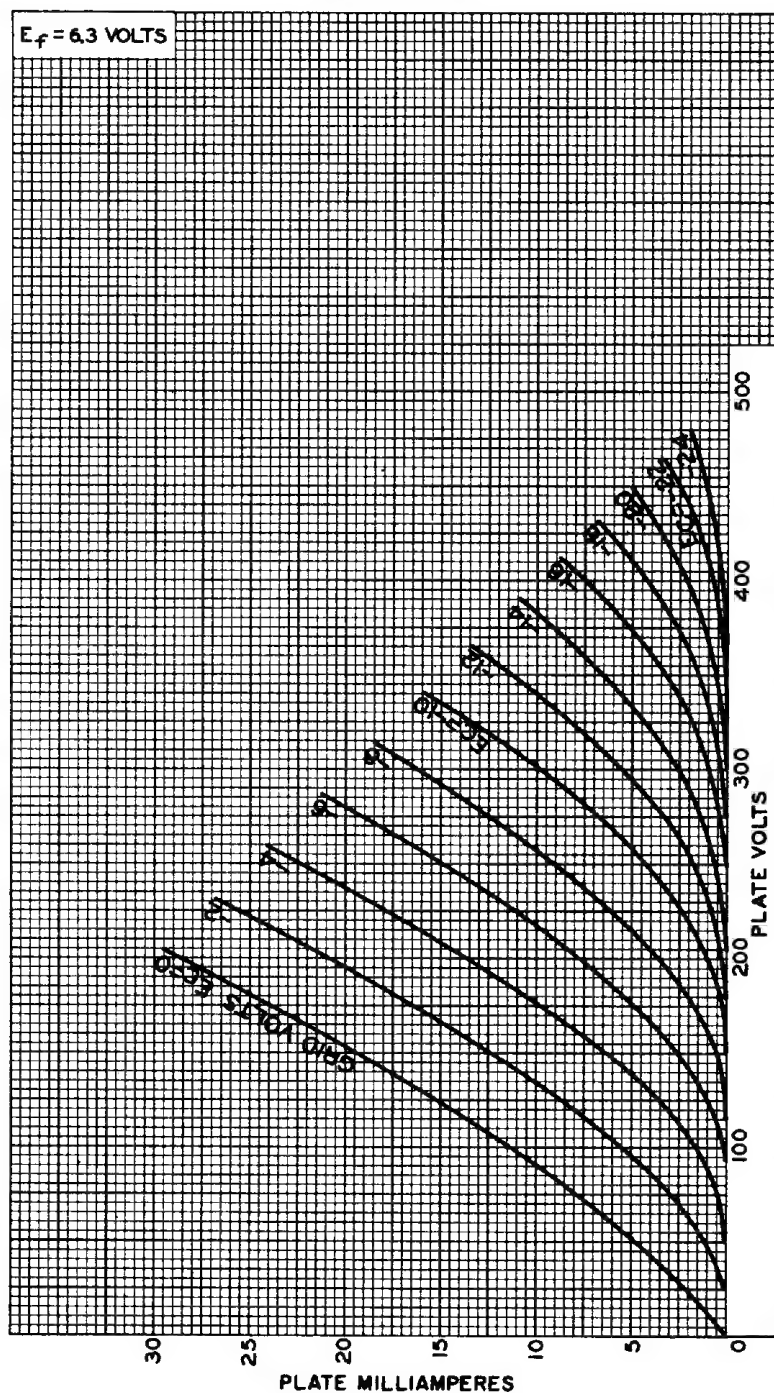


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AVERAGE PLATE CHARACTERISTICS Each Unit



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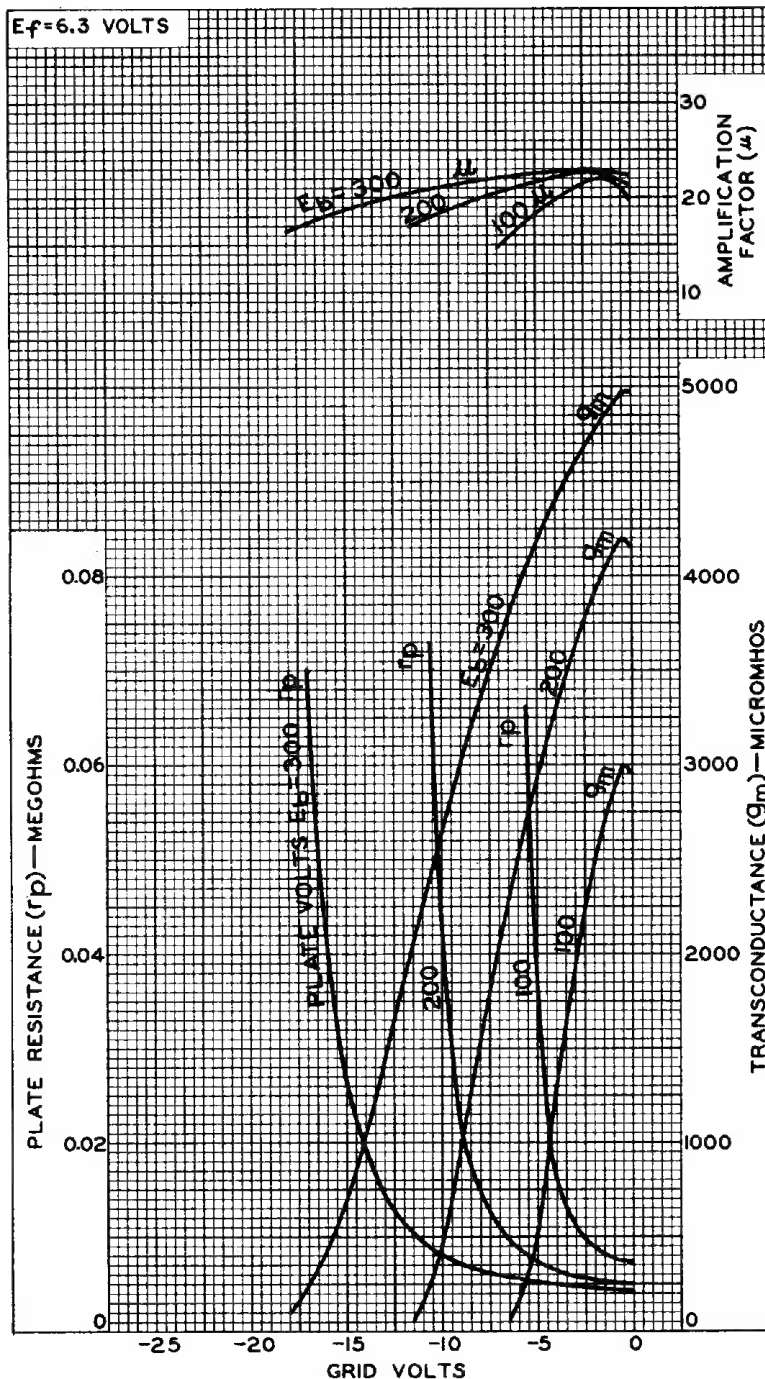
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AVERAGE CHARACTERISTICS Each Unit



92CM-8441R1



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